

To: Hong, Nadtya[Hong.Nadtya@epa.gov]
Cc: Palmer, Robert D.[rpalmer@ou.edu]; Hyland, Patrick T.[pat.hyland@ou.edu]; Droegemeier, Kelvin K.[kkd@ou.edu]; Sallee, Lee A.[lasallee@ou.edu]; Moore, Berrien III[berrien@ou.edu]; Mason, W. Scott IV[smason@ou.edu]; Kasman, Mark[Kasman.Mark@epa.gov]; Troche, Luis[Troche.Luis@epa.gov]; Mehl, Jo A.[jmehl@ou.edu]
From: Mehl, Jo A.
Sent: Thur 4/5/2018 4:14:29 PM
Subject: Re: Luis & Mark visiting NWS and Fab Lab week of April17

Hello Nadtya,

I'm Dr. Palmer's assistant. April 18 from 10:00-11:00 will work for him. His office is in the Radar Innovations Laboratory, room 106, and our building is located right east of the Nat'l Weather Center.

Please let me know if there's anything else I can do for you.

Thank you,
Jo Ann

Jo Ann Mehl

Assistant to the Executive Director,
Office Manager
The University of Oklahoma
Advanced Radar Research Center
3190 Monitor Ave, room 107
Norman, OK 73019
Phone: 405-325-3257
jmehl@ou.edu

On Apr 5, 2018, at 11:03 AM, Hong, Nadtya <Hong.Nadtya@epa.gov> wrote:

Thank you for your prompt responses.

Dr. Palmer, Mr. Kasman and Mr. Troche will meet with you on the morning of the 18th, as originally requested. The meeting should be 45 minutes to an hour. Would 10-11am be a good time for you? If so, can you please advise where the meeting should take place? They can meet you at your office if that is convenient for you.

Mr. Hyland, our team can meet with you on the afternoon of April 17. They propose a 2-hour meeting starting at 3pm. Please confirm that this time works for you and whether they would meet in your office or somewhere else.

For your information, I am attaching a document including more details on our request, background and context, and a DRAFT agenda for the Council Session that includes the sessions in which you would be involved. Please note that these documents are pre-decisional and in draft and should be kept in close hold and not shared with the public.

**Best regards,
Nadtya**

**Nadtya Y. Hong, Esq.
Office of International and Tribal Affairs
Latin America and Caribbean Team
Chile-Peru-Colombia
Ph: 202-564-1391**

<http://www2.epa.gov/international-cooperation/>

From: Palmer, Robert D. [<mailto:rpalmer@ou.edu>]

Sent: Thursday, April 05, 2018 9:38 AM

To: Hong, Nadtya <Hong.Nadtya@epa.gov>; Hyland, Patrick T. <pat.hyland@ou.edu>;
Droegemeier, Kelvin K. <kkd@ou.edu>; Sallee, Lee A. <lasallee@ou.edu>; Moore, Berrien
III <berrien@ou.edu>; Mason, W. Scott IV <smason@ou.edu>

Cc: Kasman, Mark <Kasman.Mark@epa.gov>; Troche, Luis <Troche.Luis@epa.gov>;
Mehl, Jo A. <jmehl@ou.edu>; Palmer, Robert D. <rpalmer@ou.edu>

Subject: Re: Luis & Mark visiting NWS and Fab Lab week of April17

I'm sorry but I have a very important faculty meeting on the day > 3pm.

Robert D. Palmer, PhD, FAMS, FIEEE
Executive Director, Advanced Radar Research Center (ARRC)
Associate Vice President for Research
Professor & Tommy C. Craighead Chair, School of Meteorology
University of Oklahoma
web: <http://arrc.ou.edu> voice: +1-405-325-6319

From: "Hong, Nadtya" <Hong.Nadtya@epa.gov>

Date: Thursday, April 5, 2018 at 8:31 AM

To: "Hyland, Patrick T." <pat.hyland@ou.edu>, Robert Palmer <rpalmer@ou.edu>,
Kelvin Droegemeier <kkd@ou.edu>, Lee Sallee <lasallee@ou.edu>, Berrien Moore
<berrien@ou.edu>, "W. Scott" <smason@ou.edu>

Cc: "Kasman, Mark" <Kasman.Mark@epa.gov>, "Troche, Luis"
<Troche.Luis@epa.gov>, Jo Ann Mehl <jmehl@ou.edu>

Subject: RE: Luis & Mark visiting NWS and Fab Lab week of April17

Thanks. Mr. Hyland.

Dr. Palmer, would you be available to have a meeting on the afternoon of April
17th instead? Our representatives think they can be available starting at 3pm. That way, we
could benefit from having both of you meet with EPA at the same time.

I will be sending shortly a document with some background and a proposed agenda for the
meeting for your information.

Best regards,

Nadtya

Nadtya Y. Hong, Esq.
Office of International and Tribal Affairs
Latin America and Caribbean Team
Chile-Peru-Colombia
Ph: 202-564-1391

<http://www2.epa.gov/international-cooperation/>

From: Hyland, Patrick T. [<mailto:pat.hyland@ou.edu>]

Sent: Thursday, April 05, 2018 9:22 AM

To: Hong, Nadtya <Hong.Nadtya@epa.gov>; Palmer, Robert D. <rpalmer@ou.edu>;
Droegemeier, Kelvin K. <kkd@ou.edu>; Sallee, Lee A. <lasallee@ou.edu>; Moore, Berrien
III <berrien@ou.edu>; Mason, W. Scott IV <smason@ou.edu>

Cc: Kasman, Mark <Kasman.Mark@epa.gov>; Troche, Luis <Troche.Luis@epa.gov>;
Mehl, Jo A. <jmehl@ou.edu>

Subject: Re: Luis & Mark visiting NWS and Fab Lab week of April17

Greetings,

I am leaving for Hawaii on April 18, so I will not be available to meet that morning. I will be in the office on April 17, so if you need to meet with me during your visit, we can schedule something on April 17.

Patrick Hyland
Coordinator of External Relations
National Weather Center
College of Atmospheric & Geographic Sciences
405.325.1147
pat.hyland@ou.edu

----- Original message -----

From: "Hong, Nadtya" <Hong.Nadtya@epa.gov>

Date: 4/5/18 8:12 AM (GMT-06:00)

To: "Palmer, Robert D." <rpalmer@ou.edu>, "Droegemeier, Kelvin K." <kkd@ou.edu>,
"Hyland, Patrick T." <pat.hyland@ou.edu>, "Sallee, Lee A." <lasallee@ou.edu>, "Moore,
Berrien III" <berrien@ou.edu>, "Mason, W. Scott IV" <smason@ou.edu>

Cc: "Kasman, Mark" <Kasman.Mark@epa.gov>, "Troche, Luis" <Troche.Luis@epa.gov>,
"Mehl, Jo A." <jmehl@ou.edu>

Subject: RE: Luis & Mark visiting NWS and Fab Lab week of April17

Thank you for your response. We will contact you to determine the specific times.

Mr. Hyland, can you confirm your availability on the morning of the 18th?

Best regards,
Nadtya

Nadtya Y. Hong, Esq.
Office of International and Tribal Affairs
Latin America and Caribbean Team
Chile-Peru-Colombia
Ph: 202-564-1391
<http://www2.epa.gov/international-cooperation/>

From: Palmer, Robert D. [<mailto:rpalmer@ou.edu>]
Sent: Wednesday, April 04, 2018 4:15 PM
To: Hong, Nadtya <Hong.Nadtya@epa.gov>; Droegemeier, Kelvin K. <kkd@ou.edu>;
Hyland, Patrick T. <pat.hyland@ou.edu>; Sallee, Lee A. <lasallee@ou.edu>; Moore,
Berrien III <berrien@ou.edu>; Mason, W. Scott IV <smason@ou.edu>
Cc: Kasman, Mark <Kasman.Mark@epa.gov>; Troche, Luis <Troche.Luis@epa.gov>;
Palmer, Robert D. <rpalmer@ou.edu>; Mehl, Jo A. <jmehl@ou.edu>
Subject: Re: Luis & Mark visiting NWS and Fab Lab week of April17

Dear Nadtya,

I'd be happy to meet with the EPA representative on the 18th. I'm available 9:30am
– noon.

Bob Palmer

Robert D. Palmer, PhD, FAMS, FIEEE
Executive Director, Advanced Radar Research Center (ARRC)
Associate Vice President for Research
Professor & Tommy C. Craighead Chair, School of Meteorology
University of Oklahoma
web: <http://arrc.ou.edu> voice: +1-405-325-6319

From: "Hong, Nadtya" <Hong.Nadtya@epa.gov>
Date: Wednesday, April 4, 2018 at 12:56 PM
To: Kelvin Droegemeier <kkd@ou.edu>, "Hyland, Patrick T." <pat.hyland@ou.edu>, Lee Sallee <lasallee@ou.edu>, Robert Palmer <rpalmer@ou.edu>, Berrien Moore <berrien@ou.edu>, "W. Scott" <smason@ou.edu>
Cc: "Kasman, Mark" <Kasman.Mark@epa.gov>, "Troche, Luis" <Troche.Luis@epa.gov>
Subject: RE: Luis & Mark visiting NWS and Fab Lab week of April17

Dr. Palmer,

Following up on Dr. Droegemeier's email below, are you available to meet on the morning
of April 18th with our EPA representatives?

Patrick, could you please confirm that you will be available for the meeting? Thank you.

Best regards,
Nadtya

Nadtya Y. Hong, Esq.
Office of International and Tribal Affairs
Latin America and Caribbean Team
Chile-Peru-Colombia
Ph: 202-564-1391
<http://www2.epa.gov/international-cooperation/>

From: Droegemeier, Kelvin K. [mailto:kkd@ou.edu]
Sent: Wednesday, April 04, 2018 11:08 AM
To: Hyland, Patrick T. <pat.hyland@ou.edu>; Sallee, Lee A. <lasallee@ou.edu>; Palmer, Robert D. <rpalmer@ou.edu>; Moore, Berrien III <berrien@ou.edu>; Mason, W. Scott IV <smason@ou.edu>
Cc: Kasman, Mark <Kasman.Mark@epa.gov>; Hong, Nadtya <Hong.Nadtya@epa.gov>; Troche, Luis <Troche.Luis@epa.gov>
Subject: RE: Luis & Mark visiting NWS and Fab Lab week of April17

Hi Pat,

I'm absolutely slammed that week. Bob, can you cover the VPR area as well?

Kelvin

From: Hyland, Patrick T.
Sent: Tuesday, April 03, 2018 3:31 PM
To: Sallee, Lee A.; Droegemeier, Kelvin K.; Palmer, Robert D.; Moore, Berrien III; Mason, W. Scott IV
Cc: Kasman, Mark; Hong, Nadtya; Troche, Luis
Subject: Re: Luis & Mark visiting NWS and Fab Lab week of April17

Hi Luis,

Let me connect you with some of the individuals we had introduced earlier to see if they would be able to meet with yourself and Mark in a couple weeks

- Dr. Berrien Moore: Director of the National Weather Center
- Dr. Kelvin Droegemeier: OU Vice President for Research
- Dr. Robert Palmer: OU Associate Vice President for Research, Director of the Advanced Radar Research Center

They may also be able to suggest others that would be interested in meeting with the pair of you to discuss the delegation visit in June and objectives for the visit.

If you have any other questions, please let me know!

Patrick Hyland, CTA
Coordinator of External Relations
National Weather Center
College of Atmospheric and Geographic Sciences
pat.hyland@ou.edu
405.325.1147
<image001.jpg>

From: Troche, Luis <Troche.Luis@epa.gov>
Sent: Tuesday, April 3, 2018 3:14:03 PM
To: Hyland, Patrick T.
Cc: Kasman, Mark; Hong, Nadtya
Subject: Luis & Mark visiting NWS and Fab Lab week of April 17

Hi Patrick,

Thanks for the call with the Canadian and Mexican counterparts last week. It was very productive. I could use your help. Mark - our Office Director, who you met with me-- and I need to visit and meet with the Dean or Deans for the NWS and the Fab Lab to discuss high-level preparations for the June visit and events. We would also visit with you and Brandt again to go over our current plans (as drafted with you both) in more detail, make any adjustments that may result for Mexican/Canadian additions, and go over logistics, etc.

Mark and I can arrive in OKC on the 17 and visit with the Dean(s) and you all on the 18th-- preferably early.

Would you be able to advise on who the Deans are for each and how we may contact their schedulers/relevant person to arrange the meetings? Would you be available for the meetings with us?

Looking forward to your assistance and perfecting our program with you. I've copied Mak and Nadtya here so they get your response as well.

Best Regards, Luis

Luis Troche

Senior Advisor for North American Affairs

CEC General Standing Committee

Office of Regional and Bilateral Affairs

Office of International and Tribal Affairs

U.S. Environmental Protection Agency

Ph. 202.564.2870 | www.epa.gov/international

From: Troche, Luis
Sent: Wednesday, March 14, 2018 10:59 AM
To: Troche, Luis; Bordas Cusco, Agusti (EC); Cintia Rubi Amezcua Orellana; Bahri, Hassen (EC); Hong, Nadtya; Hyland, Patrick T.
Cc: Gramiak, Mary (EC)
Subject: Discuss potential partnerships at Council Session - National Weather Center and Fabrication lab
When: Wednesday, March 28, 2018 1:00 PM-2:00 PM.
Where: Call in number:

Ex. 6 - Personal Privacy

Dear colleagues— I think we have a winner. Hopefully this time works for Canada. It works for the US, OU, and SEMARNAT.

Please clarify if the universities/other agencies are joining and pass on the call info to them.

Now with the call number.

This call is intended to include ECCC, SEMARNAT, EPA US NWS and Canadian Universities invited by ECCC.

This call is to discuss and explore:

1. Potential partners from Canada and Mexico for the National Weather Service event (universities, research, weather centers) and the fabrication lab (universities, private sector)
2. Explore potential deliverables or partnerships that could be created and announced at Council Session
3. Explore roles for Ministers/Partners in the events

Background and Context and relevant info from annotated Council Program

The University of Oklahoma, Norman houses the National Weather Center (NWS), a Fabrication Lab, and an innovation hub. The council session engages the NWS and the Fabrication lab in separate events. The NWS, besides monitoring and forecasting weather, has partnerships with the University and other institutions/agencies for research, etc. These were listed in the annotated Council Session program, but I am including them here for easier access by this email group.

What we are looking for is an opportunity to share capacities across the three countries (universities and/or NWS) and potentially design and announce partnerships, either with the University/NWSs atmospheric teams or the fab labs or

both (as separate pieces, of course).

Here is the NWS draft program and efforts so that we can start brainstorming with you all (and hopefully Mexico). We would need to update the draft once we have sense of how Canada and Mexico would participate (i.e., with universities or weather centers, etc) and what announcements might be made (at council session):

Wednesday 27 June 2018

8:00 - 8:30 am Transportation of Ministers and delegations (only) to University of Oklahoma, Norman

8:30 - 9:45 am U.S. National Weather Center at University of Oklahoma
Participants: Ministers, Delegations, Secretariat
Press: TBD

National Weather Center Tour and Briefings:

The objective of this visit is to showcase federal, state and academic partnerships and innovation, and:

- Explore technology and science on weather
- How weather impacts sustainability, resilience, growth
- How the weather centers' technology and science is relevant to the CEC projects
- Opportunities for US-Canada-Mexico collaboration

The National Weather Center (<http://www.ou.edu/nwc/>) is a one-of-a-kind facility that houses a unique confederation of The University of Oklahoma, National Oceanic and Atmospheric Administration (NOAA), and state organizations that work together in partnership to improve understanding of events occurring in Earth's atmosphere over a wide range of time and space scales. Please see attachment 1 for list of organizations that may participate in this event.

Program:

- 8:30 – 8:50 am Welcome and Introduction to the NWC and University Research Campus and CEC
 - **8:50 – 9:30 am Ministers' VIP tour or private meeting with NWC Leadership (Ministers + 3, format TBC)**
- **8:50 – 9:30 am Delegation split in two groups for tour/browse NWC and visit tenant booths**
- **9:30 – 9:45 am Closing remarks, Administrator Pruitt, Ministers McKenna & Pacchiano**

- 9:45 am - Depart for OU Innovation Hub-Fabrication Lab

Tours will visit the Observation Deck to discuss the history of the National Weather Center and the development and growth of University Research Campus, as well as the forecast operations areas for the NOAA National Weather Service Oklahoma City/Norman Weather Forecast Office and the NOAA NWS Storm Prediction Center to discuss operational meteorology. Through the NWC tours and the opportunity to showcase the various tenants of the National Weather Center, the objective is to address the following topics of interest to CEC:

- Weather impacts to crops, pollinators, agriculture, aquaculture/fisheries and economy
 - Habitats and Migration
 - Monarch butterflies and pollinators
- Weather impacts to transport of trade or stocking of supply chains
- Reducing emissions with ocean vessels (geo carb mission, North America and Amazon)
 - Air quality impacts
- Food loss and waste on entire chain (production and consumption)
- Weather prediction and tracking capabilities and the ability to protect or harden infrastructure to maintain environmental protection, productivity, outputs or sustainability of coastal cities
- Extreme heat impacts on health (working with National Institute of Health) and urban heat island and canyons research

Attachment 1 – Organizations Potentially Participating in National Weather Center Event

National Weather Center Organizations:

Federal:

NOAA National Severe Storms Laboratory (NSSL), NOAA National Weather Service Oklahoma City/Norman Weather Forecast Office (NWS Norman), NOAA Radar Operations Center (ROC), NOAA NWS Storm Prediction Center (SPC), NOAA Warning Decision Training Division (WDTD)

Academic:

OU College of Atmospheric & Geographic Sciences (A&GS) (OU School of Meteorology (SoM) and Department of Geography and Environmental

Sustainability (DGES))

R&D Partners:

Advanced Radar Research Center (ARRC), Center for Analysis & Prediction of Storms (CAPS), Center for Spatial Analysis (CSA), Cooperative Institute for Mesoscale Meteorological Studies (CIMMS), Oklahoma Climatological Survey (OCS)/Oklahoma Mesonet, South Central Climate Science Center

Potential Booths/Organizations:

Oklahoma Mesonet (<http://mesonet.org/>): Most sophisticated surface observation network (120 stations) in the United States, covering all 77 Oklahoma counties. The Oklahoma Mesonet has profound impacts for forecasting as well as for agriculture.

ARRC (<https://arrc.ou.edu/>) and NSSL (<https://www.nssl.noaa.gov/>): A national leader in radar research and severe storm research. Experts on radar meteorology can discuss the latest advancements in weather-radar technology, collaboration with the US, Mexico, and Canada, and the use of weather radar not only to look at weather, but to monitor birds, bats, insects, and migration patterns (aeroecology).

CIMMS (<http://cimms.ou.edu/>) and NSSL: Researchers at the National Weather Center are working on developing new advances in forecasting and warning processes. FACETs (Forecasting a Continuum of Environmental Threats) is a new program that is utilizing Probabilistic Hazard Information (PHI) to disseminate warnings in an entirely new fashion. NSSL HyDROS is a hydrometeorology group working on developing a new flash-flood model for better prediction of dangerous floods (FLASH model). Researchers from these groups can discuss their work in the NOAA Hazardous Weather Testbed (HWT).

WDTD (<http://training.weather.gov/wdtd/>): This group trains all the National Weather Service forecasters in the United States, but has also provided training simulations for forecasters in Canada and Mexico

South Central Climate Science Center (<http://southcentralclimate.org/>): Established in 2012, the South Central Climate Science Center provides decision makers with the science, tools, and information they need to address the impacts of climate variability and change on their areas of responsibility. They promote multi-institutional and stakeholder-driven approaches to assessing the impact of climate extremes on natural and cultural resources.

Center for Autonomous Sensing and Sampling (<https://cass.ou.edu/>): CASS's mission is to explore, advance, and develop complete adaptive and autonomous sensing and sampling systems for use in the atmosphere, on the ground, and in the water, and to help facilitate the integration of this technology across various disciplines and institutions. The goal of CASS is to establish itself as a recognized global leader in research, education, and development involving autonomous sensing and sampling solutions to address science and technology driven needs, fostering an environment for trans-disciplinary applications of this technology, and helping to promote the effective transfer of knowledge and technology to academia, government, and industry.

The University of Oklahoma Office of the Vice President for Research (<https://vpr-norman.ou.edu/>): The University of Oklahoma's Research Campus is a collaborative environment where academia, industry, and government build on the university's intellectual vitality. Collectively, the federal and private entities housed on the Research Campus represent more than 750 technology and knowledge-

based jobs for the Norman community and the state of Oklahoma. Exciting new developments are in place, led by the OU VPR office, to grow the Norman Weather Enterprise with dramatic impacts on the Oklahoma economy. UAV/UAS research via CASS and the initiative to create the National Environmental Simulation and Testing Facility (<http://nest.ou.edu/>) are at the top of the list growing the Norman Weather Enterprise.

GeoCARB: The largest grant ever awarded to the University of Oklahoma. The primary goals of the Geostationary Carbon Cycle Observatory (GeoCARB), led by Dr. Berrien Moore (Director of the National Weather Center and Dean of the College of Atmospheric & Geographic Sciences) of the University of Oklahoma in Norman, are to monitor plant health and vegetation stress throughout the Americas, and to probe, in unprecedented detail, the natural sources, sinks and exchange processes that control carbon dioxide, carbon monoxide and methane in the atmosphere. The press release from NASA (<https://www.nasa.gov/press-release/nasa-announces-first-geostationary-vegetation-atmospheric-carbon-mission>) and presentation

(https://www.nacarbon.org/meeting_ab_presentations/2017/2017_Mar28_AM_Moore_III_217.pdf) showing program details and international partners (including groups in Mexico) are presented here.

<Request from US Environmental Protection for Meetings with Oklahoma University Leadership for the National Weather Service and the Innovation Hub.docx>